



New studies from the National Center for Health Statistics (NCHS) document current patterns and trends in ambulatory and long-term care in the United States. Reports just published by the Center show a shift to utilization of physicians in multiple-member as opposed to solo practice and an increase in the supply of nursing homes and nursing home beds in the country.

## New Findings on Health Care Utilization

**Ambulatory care.** The 636.4 million visits to office-based physicians in 1985 are profiled in "1985 Summary: National Ambulatory Medical Care Survey," Advance Data No. 128. The 1985 total represents an increase of about 50 million office visits since 1981 when the last ambulatory care survey was conducted. However, the annual visit rate has remained approximately constant since that time, at 2.7 visits per person per year.

The report provides an overview of ambulatory care. Among the highlights:

- Women accounted for 61 percent of all physician office visits.
- Fifty-one percent of all visits were to physicians in a solo practice, while 49 percent were made to doctors in a multiple-member practice. The number of visits made to doctors in solo practice has declined since 1973—the year of the first ambulatory care survey—when visits to solo practitioners made up 60 percent of all visits.
- Essential hypertension was the most common diagnosis and a blood pressure check the most frequently ordered or provided service during the office visit.

The National Ambulatory Medical Care Survey (NAMCS) is also the source of data on prescribing patterns among physicians. Drugs were prescribed or provided at three of every five visits Americans made to office-based physicians in 1985. This pattern of treatment resulted in an estimated 693.4 million drugs provided, an average of 1.1 drugs per physician visit.

Drug utilization was high among the young, due largely to the use of antibiotics and immunizations and among the older population largely because of the presence of multiple chronic diseases. While older patients made only 20 percent of all office visits, they accounted for 30 percent of the total drug utilization picture.

General or family practitioners and internists led most other physicians in the frequency and volume of their drug utilization. Cardiovascular-renal agents, antibiotics, and analgesics accounted for 40 percent of all drugs prescribed or provided. Hydrochlorothiazide—used in the treatment of hypertension—was the drug most frequently prescribed or provided in office practice.

Increases in the use of several classes of drugs were noted between 1981 and 1985. Cardiovascular drugs, specifically antihypertensive agents and vasodilators, increased in use by 17 percent. There were also significant increases in the use of analgesics and antipyretics and anti-anxiety agents. "Highlights of Drug Utilization in Office Practice, National Ambulatory Medical Care Survey, 1985," Advance Data No. 134, also shows the use of generic drugs at 19 percent of all prescriptions. Data for NAMCS are reported by physicians and their staff for patients making office visits.

**National Nursing Home Survey results.** Five percent of the population ages 65 and over reside in nursing homes, according to findings in the first report from the 1985 National Nursing Home Survey. The proportion of elderly in nursing homes, however, did not change from the 1977 survey. There was a significant rise in the number of nursing homes and nursing home beds in the nation. "Nursing Home Characteristics: Preliminary Data from the 1985 National Nursing Home Survey," Advance Data No. 131, shows a 22 percent increase in the number of nursing homes and a 38 percent increase in nursing home beds between 1973–74 and the 1985 survey. The survey documents other changes in nursing home operations. There was a significant increase—28 to 41 percent—in the number of chain homes since 1977, when the last sur-

vey was conducted. The survey reported that most of the nation's nursing homes were operated for profit. Proprietary homes accounted for 75 percent of all nursing homes, and homes owned by nonprofit organizations constituted 20 percent, with the rest operated by Federal, State, and local governments. The 1986 survey gathered data on daily rates for nursing home care. Skilled care had the highest daily rate of \$81 per day. Intermediate care was \$48 per day, and residential care cost \$31 per day. The 1985 National Nursing Home Survey is a nationwide survey of nursing and related care homes, their residents, and staff.

## NCHS to Focus on Cognition and Survey Measurement

The National Laboratory for Collaborative Research in Cognition and Survey Measurement was established in the NCHS during 1986. The National Laboratory is jointly funded by NCHS and the National Science Foundation (NSF). It is located at NCHS headquarters in Hyattsville, MD, and managed by NCHS staff.

The National Laboratory evolved from a research project that was also supported by NSF and administered by NCHS. The earlier project successfully demonstrated the utility of conducting multidisciplinary research on the cognitive aspects of survey methodology. It also demonstrated the effectiveness of administering such a program by a Federal statistical agency working in close collaboration with university scientists and other Federal agencies.

**Mission.** The National Laboratory's mission is to promote and advance interdisciplinary research on the cognitive aspects of survey methodology in Federal statistical agencies and in the nation's universities and research centers. It has objectives in three broad areas:

*Survey research*—to improve laboratory methods for designing questionnaires and statistical methods for measuring and controlling response error effects of questionnaires.

*Cognitive science*—to enhance cog-

nition research by providing cognitive scientists with opportunities to collaborate in survey-oriented research projects.

*Federal statistics*—to improve the quality of the nation's major statistical files that are used in planning, evaluating, and legislating the nation's health and social services programs.

The mission of the National Laboratory is carried out by its Collaborative Research Program and Questionnaire Design Research Laboratory.

**Collaborative Research Program.** The Collaborative Research Program supports university and research center scientists in conducting problem-oriented research on cognitive issues germane to improving the quality of national health and related statistics. Its two components are the Contract Research Program and the Visiting Scientist Program.

*The Contract Research Program* awards competitive contracts to scientists in universities and research centers to investigate cognitive issues in the survey measurement process relating to instruments of NCHS surveys. The broad issues are specified by NCHS. Scientists are encouraged to be innovative in their proposals and can take a wide variety of approaches to a topic. The experiments are designed and executed by the contractors in their own laboratories. For example, competitive contracts have been awarded to investigate (a) the strategies individuals use to recall episodes of medical care and (b) the natural categories into which individuals organize chronic health conditions.

The contractor's reports will be published in the NCHS report series "Cognition and Survey Measurement," and the investigators are strongly encouraged to present their findings in refereed journals and elsewhere.

Professional services contracts are awarded on an ad hoc basis to investigate problems requiring limited-resource expenditures. For example, contracts have been awarded to review the literature on response errors in reporting of chronic conditions and to develop statistical models of the error effects of questionnaires.

For the *Visiting Scientist Program* appointments are made to cognitive psychologists, survey researchers, and statisticians. The appointments provide opportunities for participants to collaborate with NCHS staff in researching

cognitive issues in large Federal surveys. Participants conduct their research in areas of mutual interest to themselves and the National Laboratory.

Participants are appointed as Service Fellows at a stipend commensurate with faculty salaries plus a moving expense allowance. The length of the in-residence period varies from several weeks or months to a year or possibly longer and can be tailored to fit periods of sabbatical leave.

**Questionnaire Design Research Laboratory.** The Questionnaire Design Research Laboratory (QDRL) was established in 1985 and serves as a resource for NCHS and other Federal agencies to conduct mission-oriented research in developing, designing, and testing questionnaires. It represents the first permanent laboratory in a Federal statistical agency to apply cognitive research methods to questionnaire design. The laboratory consists of a suite of rooms that are designed for conducting cognitive interviews and experiments with volunteer subjects selected from the community.

Traditional methods of questionnaire development have emphasized "external" aspects of the data collection process, such as standardization of interviewer behavior to minimize interviewer effects, efficient use of skip patterns and formatting to insure logical question flow, and use of various incentives to minimize nonresponse. In contrast, QDRL investigations focus on the four cognitive stages (comprehension, recall, estimation, and judgment) of the "internal" process by which individuals formulate responses to survey questions.

The major objectives of QDRL are (a) to develop and test Federal data collection instruments in a laboratory setting using the concepts and techniques of cognitive science and (b) to develop and improve methods of conducting questionnaire design research. Within the limits of its existing personnel resources, QDRL provides questionnaire design assistance to other agencies under a reimbursable work order arrangement.

The QDRL is involved in all stages of questionnaire design. It is used to develop and test questionnaires prior to conducting field tests, and to investigate any unresolved questionnaire issues that remain after completing the field tests. A variety of cognitive

methods are used including protocol analysis, think-aloud, focus interviews, and so forth. The methods used at each stage of the questionnaire development vary, depending on the kinds of cognitive problems anticipated (for example, comprehension versus recall), the mode of administration (personal interview versus mail versus telephone), the stage of development of the questions (previously used versus newly developed), and numerous other factors.

For further information about the Contract Research Program, the Visiting Scientist Program, the Questionnaire Design Research Laboratory, and reports from the National Laboratory, please call (301) 436-7111, or write to the Office of Research and Methodology, National Center for Health Statistics, Room 2-12, 3700 East-West Highway, Hyattsville, MD 20782.

### **Data Tapes Now Available from the Full Hispanic HANES**

The first public use data files from the Hispanic Health and Nutrition Examination Survey containing data from all three Hispanic groups in the survey have been released. Data for Mexican-Americans, Cuban-Americans, and Puerto Ricans were collected from 1982 to 1984 through standardized physical examinations, laboratory tests, and interviews. The findings encompass statistics on the prevalence of selected chronic diseases; serum cholesterol, blood pressure, and other measurements; and monitoring of dietary practices and nutritional status. Earlier tapes contained data only for the first phase of the survey on Mexican-Americans. Data tapes are sold through the National Technical Information Service.

For more information on the data tapes, publications, or other materials in this article, contact the Scientific and Technical Information Branch, 3700 East-West Highway, Hyattsville, MD 20782 or phone (301) 436-8500.

—SANDRA SMITH, MPH, Chief, Scientific and Technical Information Branch and THOMAS KUBECK, MEd, Scientific and Technical Information Branch